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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* OLA OLOFSSON, ULF PALMBLAD, and LEIF JOHANSEN

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Appeal 2007-2248  
Application 10/754,564  
Technology Center 3600

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Decided: January 31, 2008

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Before MURRIEL E. CRAWFORD, JENNIFER D. BAHR, and DAVID B. WALKER, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Ola Olofsson et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 14, 15, and 17-23, the only pending claims. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

*The Invention*

Appellants' claimed invention is directed to a tongue and groove joint between two boards, the joint including a guiding means (Spec. 1). Claims 14 and 23 are illustrative of the claimed invention and read as follows:

14. A joint formed at a junction between adjacent boards, the joint comprising:
  - a first board, comprising an upper surface, a lower surface and a groove;
  - a second board joined to the first board, and comprising an upper surface, a lower surface and a tongue, said upper surface of said first board and said upper surface of said second board abutting each other;
  - a first equalizing cavity located adjacent to an upper end of a proximal end of the tongue below said abutting surfaces;
  - wherein a distal end of the tongue is smaller than a proximal end of the groove;
  - a second equalizing cavity, formed by a gap between the proximal end of the groove and the distal end of the tongue; and
  - further comprising glue disposed in at least one of the first equalizing cavity and the second equalizing cavity.
23. A method for assembling floor boards to form a joint therebetween, the method comprising:
  - providing:

a first board, said first board comprising an upper surface, a lower surface and a groove;

a second board joined to the first board, and comprising an upper surface, a lower surface, and a tongue; and

glue, disposed on at least one of said tongue and said groove;

mating said groove of said first board with said tongue of said second board; and directing said glue away from said upper surface and towards the lower surface of said boards.

*The Rejection*

Appellants seek review of the Examiner's rejection of claims 14, 15, and 17-23 under 35 U.S.C. § 103(a) as unpatentable over Parasin (US 5,165,816, issued November 24, 1992) in view of Finkell (US 5,797,237, issued August 25, 1998). The Examiner (Ans. 2) has withdrawn the rejection of claim 18 under 35 U.S.C. § 112, first paragraph, set forth in the Final Rejection (mailed October 20, 2005).

The Examiner provides reasoning in support of the rejection in the Answer (mailed August 14, 2006). Appellants present opposing arguments in the Appeal Brief (filed June 8, 2006) and Reply Brief (filed October 5, 2006). Appellants' counsel presented oral argument on January 24, 2008.

OPINION

*Claims 14, 15, and 17-22*

Independent claims 14, 15, 17, and 18, and claims 19-22 depending from claim 18, all require that the upper surface of the first board and the upper surface of the second board abut each other. The Examiner finds that Parasin does not disclose that the upper surfaces abut (Ans. 4, 5, and 6). The Examiner also finds that Finkell teaches that upper surfaces of floorboards should abut, and finds that one of ordinary skill in the art would have readily recognized that non-abutting floorboards present a greater trip hazard than abutting floorboards and catch/trap dirt (Ans. 4, 5, and 6). Thus, the Examiner contends that it would have been obvious to a person of ordinary skill in the art at the time of Appellants' invention to modify Parasin's upper surfaces to abut one another to decrease trip hazards, eliminate dirt-trapping gaps, and create a more desirable aesthetic appearance (Ans. 4, 5, 6, and 7). Appellants argue that such a modification is an anathema to the teachings of Parasin of providing spaces 46 between the upper surfaces of the panels (App. Br. 6). Accordingly, at issue in the rejection of claims 14, 15, and 17-22 is whether it would have been obvious to abut the upper surfaces of Parasin's adjacent panels 10 and 11.

Parasin discloses a tongue and groove arrangement for use on plywood panels, oriented strandboard, waferboard, particleboard, and fiberboard, and in particular as floor sheathing and flat roof sheathing (col. 1, ll. 7-9 and 12-13, col. 2, ll. 19-21). Parasin's tongue 12 comprises a head 16 with chamfered sides 17 that diverge from a narrowed tip 18 to a neck 20 having essentially parallel sides 22, the neck merging into a shoulder portion 24 having chamfered sides 25 that expand to merge with the side edge 27 of

panel 11 (col. 2, ll. 40-46; fig. 1). Parasin's groove 14 is formed along side edge 29 of panel 10 and is shaped to accept tongue 12 (col. 2, ll. 47-48).

Groove 14 comprises a head 32 having chamfered sides 33 that diverge from a base 34 to a neck 35 having parallel sides 36 that merge into a shoulder portion 37 having chamfered sides 38 that expand to a groove opening 40 (col. 2, ll. 51-55). The chamfered surfaces of tongue 12 are disposed at a more acute angle than the chamfered surfaces of groove 14 to leave spaces 42 and 44 therebetween (col. 2, ll. 59-62 and col. 3, ll. 18-19 and 23-24). Spaces 42 define a gap to accommodate excess glue, if used, or debris and dirt pushed forward by the penetrating tongue, if glue is not used (col. 3, ll. 18-22). Spaces 44 accommodate panel expansion and contraction in the assembled joint (col. 3, ll. 23-26). Parasin desires spaces 46 between the joined panel edges 27 and 29 to allow for further expansion and contraction of the joint and teaches that tongue 12 is preferably longer than groove 14 is deep to create such spaces when tongue tip 18 engages groove base 34 (col. 3, ll. 28-32).

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

*KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Moreover, rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967).

Finkell is directed to a snap-together panel or flooring system, as contrasted with the floor sheathing or flat roof *sheathing* of Parasin. We agree with the Examiner that a person of ordinary skill in the art would readily appreciate that gaps between flooring boards potentially present tripping hazards and can trap dirt and be aesthetically unpleasant. Parasin, however, gives no indication that the spaces 46 provided for the purpose of allowing for expansion and contraction of the joint are of such a dimension as to give rise to such problems, especially within the context of the particular application taught by Parasin, namely, floor sheathing and flat roof sheathing, which are intended to be covered by flooring or roofing. We thus conclude that the Examiner has failed to identify a reason, factually supported in the record, that would have prompted a person of ordinary skill in the art to forego the benefit of spaces 46 in accommodating expansion and contraction of the panels recognized by Parasin by abutting Parasin's panels 10 and 11, as proposed by the Examiner.

For the above reason, the Examiner has failed to establish a *prima facie* case that the subject matter of claims 14, 15, and 17-22 would have

been obvious to a person of ordinary skill in the art at the time of Appellants' invention. The rejection of these claims as unpatentable over Parasin in view of Finkell cannot be sustained.

*Claim 23*

Claim 23 requires steps of providing "glue, disposed on at least one of said tongue and said groove" and "directing said glue away from said upper surface and towards the lower surface of said boards." Appellants argue that Parasin does not disclose the step of directing the glue away from the upper surface and toward the lower surface of the boards (App. Br. 8, Reply Br. 8). The Examiner does not rely on any disclosure of Finkell to satisfy this limitation.<sup>1</sup> In addressing this feature, the Examiner points to Parasin's disclosure that the spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue (Ans. 12). According to the Examiner, applying glue to Parasin's joint prior to assembly requires that the glue be squeezed out from between tip 18 and base 34 to flow into gaps or spaces 42, 44, and 46, with the flow of glue into the bottom spaces 42, 44, and 46 being away from the upper surface and toward the lower surface of the boards, as claimed (Ans. 13). Assuming that the Examiner's theory with regard to the flow of the glue is correct, glue would also be squeezed out from between tip 18 and base 34 to flow into the top spaces 42, 44, and 46, such flow being toward the upper surface of the

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<sup>1</sup> It is not apparent why the Examiner has included Finkell in the rejection of claim 23, as claim 23 does not require the upper surfaces of the boards to be abutting, the only feature for which the Examiner seems to rely on Finkell.

boards and away from the lower surface of the boards. Thus, viewing the flow of the glue in the joint of Parasin as a whole, Parasin cannot reasonably be considered to disclose a step of "directing said glue away from said upper surface and towards the lower surface of said boards."

We thus conclude that the Examiner has failed to establish a *prima facie* case that the subject matter of claim 23 would have been obvious to a person of ordinary skill in the art at the time of Appellants' invention. The rejection of claim 23 as unpatentable over Parasin in view of Finkell cannot be sustained.

#### CONCLUSION

The decision of the Examiner to reject claims 14, 15, and 17-23 is reversed.

REVERSED

JRG

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